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ProductInformation

Ethopropazine hydrochloride

Product Number **E 2880**
Storage Temperature 2-8 °C

Product Description

Molecular Formula: $C_{19}H_{24}N_2S \bullet HCl$
Molecular Weight: 348.9
CAS Number: 1094-08-2
Melting point: 223-225 °C (with some decomposition)[1]
Extinction coefficient: E^{mM} (50% ethanol) = 27.5 (251 nm); 3.47 (299 nm)[2]
Synonyms: ET, 10-(2-Diethylaminopropyl)phenothiazine

Ethopropazine is described as a selective inhibitor of serum cholinesterase. A 10^{-4} M solution selectively inhibits plasma cholinesterase.[3] There has been additional discussion on the inhibition of acetylcholinesterase (AChE) and cholinesterase.[4,5] BW284c51 is a selective inhibitor of AchE; whereas iso-OMPA and ethopropazine are selective inhibitors of butyrylcholinesterase (BChE). A table lists IC_{50} values (nanomolar) of various physostigmine analogs versus human and electric eel AChe and human BChe. Information on ethopropazine is included under "other anticholinesterases" in this table.[5]

When a racemic mixture of ethopropazine hydrochloride was injected into rats, no stereoselectivity was observed in plasma or tissues. The highest uptake of ET occurred in brain tissue, followed by heart tissue, and then plasma. There was no noticeable difference between concentrations of ET enantiomers in different parts of the brain (substantia nigra, cortex, or striatum). There was no observed stereoselectivity in plasma protein binding of ET enantiomers in rat plasma.[6]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in water (2.5 mg/ml, 20 °C; 50 mg/ml, 40 °C). It is also soluble in absolute ethanol (33 mg/ml, 25 °C) It is sparingly soluble in acetone and pratically insoluble in ether and benzene. The pH of a 5% aqueous solution is approximately 5.8.[1]

References

1. The Merck Index, 12th ed., Entry# 3793.
2. United States Pharmacopeia USP XXI NF XVI, United States Pharmacopeial Convention (Rockville, MD: 1984), p. 413.
3. Methods of Enzymatic Analysis, 4th ed., Whittaker, M., ed., Verlag Chemie GmbH (New York, NY: 1984), pp. 52-74.
4. Todrick, A., British J. Pharmacol., **9**, 76-83 (1954).
5. Atack, J. R., et al., Comparative inhibitory effects of various physostigmine analogs against acetyl- and butyrylcholinesterases. J. Pharmacol. Exp. Ther., **249**, 194-202 (1989).
6. Brocks, D. R., and Maboudian-Esfahani, M.,
7. J. Pharm. Pharmaceut. Sci., **2**, 23-29 (1999).

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